

COTH-P01-002 SEQUENCE LISTING SEQUENCE LISTING

<110> CHAN, JOHN BAYNES, BRIAN ZHANG, SHENGSHENG

<120> METHODS OF ENGINEERING SPATIALLY CONSERVED MOTIFS IN POLYPEPTIDES

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<151> 2002-09-30

<160> 4

<170> PatentIn version 3.2

<210> 1

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<212> DNA

<213> TNF alpha chain b mutation

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Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu 35 40 45

Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe Page 1 Lys Gly Gln Gly Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile 65 70 75 80 Ser Arg Ile Ala Val Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala 85 90 95

Ile Lys Ser Pro Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys

Pro Gln Tyr Glu Pro Ile Asp Leu Gly Gly Val Phe Gln Leu Glu Lys 115 120 125

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<210> <211> 474 DNA TNF alpha chain c mutation

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TNF alpha protein sequence chain c

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Val Ala Asn Pro Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg 20 25 30 Page 2

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Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu 35 40 45

Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Ser Ser Gln Val Leu Phe 50 60

Lys Gly Gln Gly Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile 65 70 75 80

Ser Arg Ile Ala Val Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala 85 90 95

Ile Lys Ser Pro Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys 100 105 110

Pro Gln Tyr Glu Pro Ile His Leu Gly Gly Val Phe Gln Leu Glu Lys 115 120 125

Gly Asp Arg Leu Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Leu Phe 130 140

Ala Glu Ser Gly Gln Val Tyr Phe Gly Ile Ile Ala Leu 145 150 155